

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF GEORGIA
SAVANNAH DIVISION

JACQUELYN ORR and WILLIAM
ORR,

Plaintiffs,

vs.

MACY'S RETAIL HOLDINGS,
INC.,

Defendant.

CIVIL ACTION FILE

NO.: 4:16-cv-00052-
WTM-GRS

DEPOSITION OF
MARKUS NIEDERWANGER, M.D.

4:16 p.m.

June 20, 2016

Optim Healthcare
460 Mall Boulevard, Suite B
Savannah, Georgia

Annette Pacheco, RPR, RMR, CCR-B-2153

EXHIBIT

tabbies

7

APPEARANCES OF COUNSEL

On behalf of the Plaintiffs:

R. SCOT KRAEUTER, Esq.
JOHNSON KRAEUTER & DUNN
104 West State Street
Suite 200
Savannah, Georgia 31401
912-421-2900
scot@jkd1aw.com

On behalf of the Defendant:

GARRET W. MEADER, Esq.
DREW ECKL-FARNHAM, PPP
777 Gloucester Street
Suite 305
Brunswick, Georgia 31520
912-280-9662
gmeader@deflaw.com

- - -

INDEX TO EXAMINATIONS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Examination

Page

Examination by Mr. Meader	4
Examination by Mr. Kraeuter	136
Examination by Mr. Meader	143
Examination by Mr. Kraeuter	144

- - -

1 (Reporter disclosure made pursuant to
2 Article 8.B. of the Rules and Regulations of the
3 Board of Court Reporting of the Judicial Council
4 of Georgia.)

5 MR. MEADER: Please swear in the witness.

00:07 6 MARKUS NIEDERWANGER, M.D.,
00:07 7 having been first duly sworn, was examined and
00:07 8 testified as follows:

00:13 9 EXAMINATION

00:13 10 MR. MEADER: You want to agree to reserve
00:14 11 all objections except to the form of the
00:16 12 question, responsiveness of the answer until
00:17 13 first use of the deposition?

00:18 14 MR. KRAEUTER: That's fine.

00:19 15 MR. MEADER: All right.

00:20 16 BY MR. MEADER:

00:22 17 Q. Dr. Niederwanger, my name is
00:23 18 Garrett Meader. We met just a few minutes ago. I'm
00:26 19 an attorney. I represent Macy's in the case, the
00:29 20 defendant in this case. We're here to take your
00:30 21 deposition, which obviously involves me asking you
00:34 22 lots of questions. So if at any time you don't
00:36 23 understand what I've asked, please stop me and let me
00:38 24 know and I'll ask it another way. If you ever need a
00:40 25 break, let me know. We can always accommodate you.

00:44 1 Have you ever had your deposition taken
00:45 2 before?

00:45 3 A. I don't think so.

00:46 4 Q. This is the first time?

00:47 5 A. Yes.

00:48 6 Q. Okay. So as you can see -- I'll kind of
00:50 7 go over the ground rules -- as you can see, we've got
00:52 8 our court reporter here today.

00:53 9 A. Yes.

00:53 10 Q. She's taking down everything that's said
00:55 11 between you and I and what goes on back and forth. A
00:58 12 couple things make her job a little bit easier. We
01:00 13 all say uh-huh and huh-uh. Unfortunately, that
01:03 14 doesn't come through real well on a transcript. So
01:05 15 yes's and no's help her out.

01:09 16 Head nods, that's another thing we all do
01:13 17 naturally. But, again, those don't really come
01:15 18 through on the transcript.

01:19 19 All right. Could you please state your
01:20 20 name for the record.

01:20 21 A. Markus Niederwanger.

01:22 22 Q. Okay. And have you seen this document
01:26 23 before, Dr. Niederwanger?

01:28 24 A. Yes.

01:30 25 Q. Okay. And I believe page 2 or page 3 of

01:34 1 that document asks that you bring certain things with
01:37 2 you to your deposition today.

01:39 3 A. Yes.

01:40 4 Q. Have you read through that?

01:42 5 A. Yep.

01:43 6 Q. Okay. And what all did you bring with you
01:45 7 today?

01:45 8 A. I brought as much as I could.

01:47 9 Q. All right. Is this everything you've
01:49 10 brought right here?

01:49 11 A. This is everything I brought, yes.

01:51 12 Q. Okay. It looks like it's broken out in
01:53 13 file folders there. Is that how it's organized in
01:57 14 sort of a category?

01:58 15 A. Yes. I tried to put my notes in one,
02:00 16 billing notes in another one, the literature I used
02:03 17 in another one, Dr. Kamaleson notes in another one,
02:13 18 his notes in another one. Then a couple of documents
02:16 19 I reviewed for today but didn't use for the report I
02:20 20 brought in as well.

02:21 21 Q. Okay.

02:21 22 A. I was supposed to bring everything.

02:24 23 Q. Okay.

02:25 24 A. The referral notes from the previous
02:27 25 treating physician. The new note I just received

02:32 1 from the Mayo Clinic that you probably don't have
02:35 2 yet. He doesn't have yet.

02:36 3 Q. Okay.

02:37 4 A. I brought that in. That's the blue one
02:39 5 just was handed to me when I walked in.

02:41 6 Q. Okay.

02:46 7 A. What else? My report that I wrote.

02:55 8 Q. Okay.

02:56 9 A. Yep.

02:57 10 Q. All right. So, yeah, you've been
03:01 11 disclosed as an expert and we've got a copy of your
03:04 12 report along with supporting documents. I think
03:08 13 there's a total of about four exhibits that are
03:10 14 attached to this report.

03:12 15 Now, is there anything that is with you
03:18 16 that you brought today that's not contained in here?
03:21 17 It sounds like there's a couple things.

03:22 18 A. There's several things.

03:23 19 Q. The Mayo thing and some additional stuff
03:25 20 that you reviewed?

03:26 21 A. Well, No. 1 is the Mayo thing.

03:28 22 Q. Okay.

03:29 23 A. No. 2 is the literature I reviewed for the
03:31 24 report. If there's only four references in there, I
03:34 25 have a lot more than that, but all disclosed in my

03:37 1 report. And I have this, all this printout.

03:39 2 Q. Okay.

03:40 3 MR. KRAEUTER: I would interrupt. I think
03:42 4 what he's saying is he listed the literature in
03:45 5 his report, but now he's physically brought the
03:49 6 copies. Am I saying that correctly?

03:52 7 THE WITNESS: Correct.

03:53 8 Q. (By Mr. Meader) Because there are three
03:55 9 copies of three different journal articles?

03:56 10 A. No, there's more than that. This is it.
03:59 11 This is what I used.

04:01 12 MR. KRAEUTER: Four journal articles.

04:03 13 THE WITNESS: This is what I used.

04:03 14 MR. MEADER: Okay. So this --

04:06 15 THE WITNESS: And then you have a copy of
04:08 16 my report; correct?

04:08 17 MR. MEADER: I do. Thank you.

04:11 18 THE WITNESS: Page 10 of 10, there's an
04:13 19 attachment with the literature.

04:15 20 MR. MEADER: Yes.

04:15 21 THE WITNESS: Those articles are all in
04:17 22 this folder.

04:17 23 MR. MEADER: Okay. Great.

04:19 24 THE WITNESS: Also, I even think they're
04:21 25 in order.

04:22 1 MR. MEADER: Okay.

04:22 2 THE WITNESS: I believe.

04:23 3 Q. (By Mr. Meader) All right. So just out of
04:26 4 curiosity, there were three or four articles that
04:28 5 were disclosed as part of your report to us. And
04:33 6 here, I'll let you have this.

04:40 7 A. Okay.

04:40 8 Q. And those articles start at the top here.
04:46 9 We've got some page numbers.

04:47 10 A. Okay.

04:47 11 Q. Page 104 is -- actually go back one page.
05:00 12 I think it may start with that, if I'm not mistaken.

05:04 13 A. Okay.

05:05 14 Q. So how did you decide, I guess, which ones
05:07 15 to produce with your report? You know, it looks like
05:10 16 you went through about 10 or so there, but I think
05:13 17 we've got three or four produced. How did you decide
05:16 18 which three or four to produce in your report?

05:17 19 A. I produced them all here. This is the
05:20 20 literature summary.

05:22 21 Q. Okay. Sure. So what was provided to us
05:26 22 and what was filed with the Court were actual copies
05:29 23 of three or four --

05:31 24 A. Uh-huh.

05:31 25 Q. -- articles. And I'm just curious what is

05:34 1 unique or, you know, what is it about these three or
05:38 2 four articles that, you know, is the reason that they
05:40 3 were produced as opposed to all, you know, 10 that
05:44 4 you looked at there? I guess I'm trying to figure
05:47 5 out if these are the more important ones.

05:49 6 A. No.

05:50 7 MR. KRAEUTER: I'll cut to the chase, if I
05:53 8 may.

05:53 9 MR. MEADER: Sure. Sure.

05:54 10 MR. KRAEUTER: Those were four articles
05:55 11 that I provided Dr. Niederwanger and Kamaleson.
06:00 12 Therefore, I had them and I attached them to the
06:01 13 report because that seemed easiest.

06:04 14 THE WITNESS: I did not attach any
06:05 15 original literature to the report. I attached a
06:08 16 literature summary with the original sources.
06:13 17 And here are the original research literature
06:16 18 papers.

06:17 19 Q. (By Mr. Meader) Okay.

06:18 20 A. This here is -- some of those are used. I
06:22 21 don't even know if they used all of those. I don't
06:24 22 know. You can look through them if you want to.

06:26 23 Q. Okay. So these, just so I'm clear, the
06:29 24 ones that were filed and served with your report were
06:32 25 provided by the plaintiffs' counsel; correct?

06:36 1 A. Correct.

06:37 2 Q. Okay. Had you ever reviewed them prior to
06:40 3 the time that they were given to you by plaintiffs'
06:43 4 counsel?

06:44 5 A. Probably in residency or fellowship, but
06:50 6 not pulled them out specifically, no.

06:52 7 Q. Okay. When did your residency and
06:54 8 fellowship, when did those end?

06:57 9 A. 2004 and 2005.

06:59 10 Q. Okay. So if these were published after
07:02 11 then, it's unlikely you would have read them?

07:04 12 A. Might have glanced at them because I look
07:07 13 at some things, and if it's a journal article, I get
07:09 14 the articles. You know, I get the magazines at home,
07:12 15 Pain Journal and -- well, two of them. So if they're
07:15 16 in there, I look through it, yes. But not that I
07:18 17 pull them out on purpose, no.

07:19 18 Q. No independent recollection of having
07:20 19 reviewed them before they were given to you?

07:23 20 A. Correct.

07:23 21 Q. Okay.

07:27 22 A. I think that's correct, yeah.

07:29 23 Q. All right. And so you've got these
07:32 24 articles here?

07:32 25 A. Yes.

07:33 1 Q. And this is what you relied upon --

07:34 2 A. Yes.

07:35 3 Q. -- when doing your report? Great. We got
07:37 4 the report from Mayo Clinic?

07:39 5 A. Yes.

07:40 6 Q. Okay. Could I have a look at that?

07:42 7 A. Sure.

07:49 8 MR. KRAEUTER: And Garrett, just so you
07:51 9 know, I looked at this five, ten minutes ago
07:53 10 when I met with the doctor.

07:54 11 MR. MEADER: Oh, yeah, yeah, yeah.

07:55 12 MR. KRAEUTER: I've never seen that
07:58 13 before.

07:58 14 MR. MEADER: He said that, yeah, he just
07:59 15 got it.

08:08 16 Q. (By Mr. Meader) And then we've got
08:09 17 e-mails, I think, that were sent back and forth
08:11 18 between you and Mr. Kraeuter?

08:12 19 A. I have tried to print that out as much as
08:18 20 I could and I couldn't print out from my e-mail
08:21 21 directly. So I had everything transferred to Word
08:25 22 document and printed Word document.

08:26 23 Q. Okay.

08:28 24 MR. KRAEUTER: I have also, Garrett,
08:31 25 endeavored to go through my e-mail --

08:33 1 THE WITNESS: And I printed out his side.

08:35 2 MR. KRAEUTER: -- and find out what I had
08:36 3 which I've given you.

08:38 4 THE WITNESS: There's one more. There's
08:39 5 two.

08:39 6 MR. KRAEUTER: And as we discussed, the
08:42 7 only thing that's not in there is the e-mails
08:43 8 where there's transmittals or drafts.

08:45 9 MR. MEADER: Right. Which is subject
08:46 10 to --

08:46 11 MR. KRAEUTER: Which we all agree is --

08:46 12 MR. MEADER: Privileged.

08:47 13 MR. KRAEUTER: Right.

08:48 14 MR. MEADER: Yes.

08:50 15 MR. KRAEUTER: That's everything I could
08:51 16 locate on my e-mail.

08:54 17 MR. MEADER: Okay. Thank you.

08:55 18 Q. (By Mr. Meader) What else do we have?
08:56 19 Anything else that you brought with you today that
09:00 20 isn't included with this report?

09:02 21 A. Yes.

09:03 22 Q. That you haven't already --

09:04 23 A. Yes. Well, I did bring some of the notes
09:16 24 from Chatham Orthopaedics and imaging results. And I
09:21 25 do not think that you have the original reports for

09:23 1 that.

09:24 2 Q. Let's see. Chatham Orthopaedics?

09:26 3 A. That's the one -- that's the -- I think
09:31 4 the patient went to Urgent Care first and then saw
09:35 5 the orthopedic specialist at Chatham Orthopaedics.
09:39 6 They ordered some MRIs and X-rays and the nerve test.

09:42 7 Q. The EMG?

09:43 8 A. Yes. I have that all here.

09:45 9 Q. I think that may have been included, yeah,
09:47 10 unless there's two MRI's and two EMGs.

09:52 11 A. No. This is nothing new in here. That's
09:55 12 the reports I had available when I saw the patient.

09:58 13 Q. Okay. All right. I'll put them here so I
10:07 14 don't get them mixed up. Anything else?

10:08 15 A. Yes. Well, you want to put this over
10:10 16 here. No, no. This is the same. This is just
10:13 17 the --

10:13 18 Q. Just the imaging?

10:15 19 A. This belongs to this.

10:16 20 Q. Okay. We'll put this here.

10:19 21 A. Dr. Kamaleson notes I printed out. He was
10:22 22 the first one at Optim saw the patient.

10:25 23 Q. Right. Now, would that have been like on
10:27 24 August the 10th and the 23rd of September?

10:32 25 A. Yes, that's what I have. August 10,

10:36 1 11/18/2015, I have a note. 12/30/2015.

10:42 2 Q. Okay. I think there are more. Do you
10:44 3 have any others?

10:44 4 A. I have 9/23.

10:46 5 Q. Okay.

10:46 6 A. 10/21.

10:48 7 Q. Okay.

10:48 8 A. 11/18 and 12/30.

10:51 9 Q. Okay. And a 10/27. That's you.

10:55 10 A. Yes.

10:55 11 Q. All right. 11/18. 11/23 is you. 12/30?

11:07 12 A. Yeah.

11:16 13 Q. Okay. I've got those. That's fine.

11:19 14 A. Okay. Some billing information.

11:27 15 Q. Okay.

11:28 16 A. And that was handed to me today. So I
11:32 17 have not had a chance to look through that because
11:34 18 I'm not involved with the billing.

11:35 19 Q. Okay. Fair enough.

11:36 20 A. But since I got an e-mail over the weekend
11:40 21 that I should bring the billing, I asked my staff
11:43 22 this morning to get in contact with the billing
11:45 23 office and went ahead out the door. That's what they
11:50 24 handed me.

11:51 25 Q. Okay. Thank you.

11:52 1 A. And the patient's insurance, I was told to
11:56 2 bring that, too, in your request --

11:58 3 Q. Okay.

11:59 4 A. -- as well.

11:59 5 Q. All right. I'm going to put this aside.

12:02 6 I don't know that I'll have any questions about it.

12:04 7 A. And then my clinic notes. And there might
12:10 8 be starting 10/27/2015.

12:13 9 Q. Okay.

12:13 10 A. From the dates --

12:15 11 Q. Yes.

12:16 12 A. -- 10/27/2015.

12:18 13 Q. Okay.

12:18 14 A. 11/23/2015.

12:22 15 Q. Okay.

12:23 16 A. 1/19/2016.

12:25 17 Q. Okay.

12:26 18 A. 3/9/2016.

12:31 19 Q. 3/9.

12:34 20 A. Oh. Okay. Sorry. 3/9 is a letter. It's
12:38 21 not a clinic note. It's from Mayo Clinic because
12:41 22 they needed a letter that I referred her otherwise
12:44 23 for them to see her. So that's just a letter.

12:46 24 Q. I've got that.

12:47 25 A. I don't know if you have that.

12:48 1 Q. Yes. Thank you.

12:49 2 A. 3/22/2016.

12:51 3 Q. Okay.

12:52 4 A. 5/23/2016. And then 6/14/2016. I saw her

13:04 5 last week.

13:05 6 Q. Okay.

13:06 7 A. I don't know if you have that.

13:06 8 Q. I don't think we've got the 5/23.

13:09 9 A. Okay. You have the 6/14?

13:17 10 Q. I don't have the 6/14.

13:19 11 A. That might make sense because they were

13:20 12 just recent.

13:21 13 MR. KRAEUTER: I don't believe I've got

13:22 14 the 6/14.

13:24 15 THE WITNESS: You do or not?

13:25 16 MR. KRAEUTER: No.

13:26 17 THE WITNESS: It'll take several days for

13:29 18 the transcription to come back. This came back,

13:31 19 I don't know when. 6/15, 6/16 maybe. That's

13:45 20 two different dates, 5/23 and 6/14.

13:52 21 Q. (By Mr. Meader) Is there a copy machine?

13:54 22 A. Sure. It's an office.

13:55 23 Q. Right. The trick is finding someone who

14:00 24 knows how to use it probably. Scot, do you think we

14:03 25 can get some copies of those?

14:05 1 MR. KRAEUTER: Yeah. Would you like these

14:06 2 two.

14:07 3 MR. MEADER: Yeah. We can go off the

14:09 4 record.

14:10 5 (Recess from 4:30 p.m. to 4:43 p.m.)

27:22 6 Q. (By Mr. Meader) Now, Dr. Niederwanger, if

27:26 7 we could, just go through your background. Where

27:28 8 were you born?

27:29 9 A. Germany.

27:30 10 Q. What part of Germany?

27:32 11 A. Stuttgart.

27:33 12 Q. Where'd you go to school?

27:34 13 A. I went to Tübingen Medical School in

27:37 14 Germany.

27:37 15 Q. Okay.

27:39 16 A. Did a year in exchange with UCLA for

27:42 17 research, which also ended up being my doctoral

27:46 18 thesis. Then did my residency in Germany in

27:50 19 orthopedics for one and a half years. Did my intern

27:54 20 year in San Antonio in surgery. Did my residency at

27:58 21 the University of Kentucky in Lexington in physical

28:03 22 medicine and rehabilitation. Did my fellowship

28:05 23 through Emory University in Atlanta. That's my

28:09 24 education background.

28:10 25 Q. Okay. What was your thesis?

28:12 1 A. Bone morphogenetic protein. It's a
28:19 2 bone-inducing protein.

28:19 3 Q. Okay. And do you have any certifications?

28:22 4 A. Yes. Board certified through the American
28:26 5 Board of Medical Specialty, Physical Medicine and
28:29 6 Rehabilitation. And then subspecialty pain medicine
28:32 7 as well, board certified.

28:34 8 Q. Okay. And is that what your practice
28:38 9 consists of today --

28:39 10 A. Correct.

28:39 11 Q. -- is pain management?

28:40 12 A. Correct. Interventional pain medicine,
28:42 13 pain medicine, yes.

28:43 14 Q. And how long have you been with Optim?

28:45 15 A. Since February 2014.

28:52 16 Q. Okay. And it looks like you basically
28:59 17 have been doing pain management since 2005 up until
29:03 18 present?

29:03 19 A. Yes.

29:05 20 Q. Is that fairly accurate?

29:06 21 A. Yes.

29:07 22 Q. Okay.

29:08 23 A. A little bit more than pain medicine.
29:10 24 There's a lot of things that are included from the
29:12 25 physical medicine and rehabilitation standpoint, but,

29:15 1 yes.

29:16 2 Q. Okay.

29:16 3 A. Heavy emphasis on pain medicine, yes.

29:19 4 Q. Fair enough. And are you being
29:24 5 compensated by the plaintiff in this case?

29:26 6 A. Just for the time.

29:28 7 Q. And what is your rate that you're
29:30 8 charging?

29:31 9 A. The rate is \$1500 an hour.

29:35 10 Q. And I believe you had a meeting or a
29:36 11 teleconference with the plaintiffs' attorney back in
29:40 12 March; is that right? March 3rd, somewhere around
29:44 13 then?

29:44 14 A. I don't remember the day but sounds right.
29:47 15 In March, yes.

29:48 16 Q. Your fee was \$1500?

29:51 17 A. It was no teleconference. It was a
29:53 18 meeting.

29:53 19 Q. In-person meeting?

29:54 20 A. Yes.

29:55 21 Q. Where did that meeting take place?

29:57 22 A. This was in our Derenne office, 210
30:01 23 Derenne.

30:02 24 Q. Okay. Is this the first time that you've
30:04 25 worked with Mr. Kraeuter?

30:04 1 A. Yes.

30:05 2 Q. In this case?

30:06 3 A. Yes.

30:06 4 Q. Okay. Do you know how he came to find you
30:09 5 or how the plaintiff came to find you?

30:11 6 A. Yes. The plaintiff came to find me
30:14 7 because she knows Dr. Kamaleson and he referred her
30:19 8 to me.

30:20 9 Q. Okay. Fair enough. All right. And we've
30:22 10 kind of talked about this a little bit already, but
30:24 11 what did you do to prepare for your deposition today?

30:27 12 A. Well, I prepared a report.

30:29 13 Q. Okay.

30:29 14 A. And, of course, I read some literature. I
30:32 15 read through the patient's notes. I read through the
30:35 16 referring physician notes. I read through the
30:38 17 imaging results that I had available. Yeah.

30:42 18 Q. Okay. And did you do that today just
30:47 19 immediately prior?

30:47 20 A. No. No. No. This is how I spent my
30:51 21 weekend.

30:51 22 Q. Okay. I'm sorry.

30:52 23 A. That's all right.

30:53 24 Q. And as I understand it, correct me if I'm
30:58 25 wrong, but in your report you've diagnosed the

31:02 1 plaintiff with a CRPS Type 1?

31:05 2 A. Correct.

31:06 3 Q. Okay. And in your own words, what is
31:09 4 CRPS?

31:10 5 A. CRPS, well, if you, you know, use the word
31:15 6 complex regional pain syndrome. When I started my
31:21 7 residency, it used to be called RSD, reflex
31:24 8 sympathetic dystrophy. It had several different
31:27 9 other names before. It's a pain syndrome that's
31:30 10 basically characterized by pain that is out of
31:35 11 proportion to what you would expect from the noxious
31:39 12 event of the trauma that happened. Pain that
31:42 13 continues. Pain that oftentimes is a burning,
31:46 14 tingling, sharp pain that can be debilitating and
31:53 15 oftentimes causes disuse, atrophy of the muscles and
31:57 16 typically is long-lasting, a lot longer than you
32:04 17 would expect after regular trauma.

32:07 18 So typical case, someone has a forearm
32:11 19 fracture. You would expect it to be up four, six,
32:16 20 eight weeks. You would expect the pain to go away.
32:19 21 There's some pains, some group of patients that the
32:23 22 pain does not improve. The pain actually worsens and
32:26 23 the pain is separate from the inciting event.

32:28 24 The event had already been healed. If you
32:30 25 look at the X-ray, the bone would be healed. And the

32:33 1 pain is still there with certain physical
32:37 2 correctories and other things that the patient tells
32:39 3 you. Causing debilitating pain. That's what CRPS
32:45 4 is.

32:45 5 The problem with CRPS was that in the past
32:48 6 it was called RSD. They had a lot of conferences
32:53 7 about that. The contention was that it's not always
32:56 8 sympathetically maintained, so they wanted to get
32:58 9 away from the S in the RSD and wanted to call it
33:02 10 something different. Call it complex regional pain
33:05 11 syndrome, which the word already tells you it's not
33:08 12 as easy as a broken bone because they would call it a
33:11 13 broken bone.

33:11 14 Q. Uh-huh.

33:12 15 A. But if it's already in the name, the word
33:15 16 complex in it, it tells you that it's not as easy.

33:17 17 Q. Sure.

33:18 18 A. And that's where we are right now. So
33:21 19 what we do is you go by the consensus conference when
33:24 20 they have a meeting and they come up with criteria.
33:25 21 They come up with guidelines. They come up with the
33:28 22 way you should diagnose it and treat it. That's what
33:31 23 you have to go by.

33:32 24 Q. Okay. How many times over the course of
33:34 25 your career would you say that you diagnosed CRPS?

33:37 1 A. Multiple times.

33:40 2 Q. Dozens? Hundreds? Thousands?

33:41 3 A. Dozens at least. Several dozen, I would
33:49 4 think.

33:49 5 Q. Okay.

33:49 6 A. Not thousands. Definitely not. Is it a
33:56 7 hundred? It might well be, but I don't know. I've
33:58 8 been in practice since 1998.

34:00 9 Q. Okay.

34:01 10 A. Okay. So that's close to 20 years.

34:03 11 Q. Okay. So a moment ago you gave an example
34:09 12 of a hypothetical. It can arise in the forearm where
34:12 13 there's a fracture. The fracture heals and then CRPS
34:14 14 symptoms can later develop. How many instances have
34:18 15 you seen where there was no fracture, no broken bone
34:21 16 in the forearm, yet CRPS developed as a result of
34:24 17 some other trauma that did not result in a fracture?
34:28 18 How common or uncommon is that?

34:30 19 A. The most common one is after fracture, but
34:34 20 not far behind is after any kind of trauma. Soft
34:37 21 tissue trauma is a big one. It doesn't have to lead
34:41 22 to a fracture as early. We probably have better
34:47 23 numbers available for fractures because they're
34:49 24 documented versus non-fracture. But it clearly
34:54 25 exists with, you know, soft tissue trauma and

34:58 1 non-fractures.

34:58 2 Q. Okay. Can you put a rough percentage on
35:00 3 it and say ten percent of the time it arises from a
35:03 4 soft tissue injury as opposed to a fracture or 15
35:06 5 percent or 5 percent or 40 percent?

35:08 6 MR. KRAEUTER: Let me object to the form
35:10 7 and ask are you saying what he sees in his
35:13 8 practice or what the literature says?

35:14 9 MR. MEADER: What he sees on a day-to-day
35:17 10 basis.

35:21 11 A. 50/50 probably.

35:27 12 Q. (By Mr. Meader) Okay. And so you
35:28 13 mentioned that there's certain criteria, I guess,
35:31 14 that are used to reach a diagnosis, a differential
35:35 15 diagnosis of CRPS?

35:36 16 A. Correct.

35:37 17 Q. And is that the Budapest criteria that
35:39 18 you're referring to?

35:40 19 A. Those are the most recent ones, yes.

35:42 20 Q. Okay. Are those the ones that you use in
35:44 21 your practice?

35:44 22 A. Yes.

35:45 23 Q. Okay. And let's talk about that a little
35:51 24 bit. I'm going to refer to some literature that was
35:54 25 produced and attached to your expert report. And I

35:57 1 believe it's going to be in this stack of documents
36:00 2 right here. Let's start with this article here,
36:19 3 which is document No. 292-2 as part of your expert
36:27 4 report. It's page No. 104.

36:33 5 And this is an article from DMJ and on
36:41 6 page 2, it talks about how is it diagnosed.

36:50 7 A. Okay.

36:51 8 Q. Okay. And right under -- let's look at
37:01 9 this first.

37:01 10 A. Yes.

37:02 11 Q. The second paragraph says: "Although
37:03 12 there are no specific diagnostic tests for CRPS,
37:06 13 several ancillary tests are useful to rule out other
37:11 14 diagnoses."

37:12 15 A. Yes.

37:12 16 Q. So basically it's, you know, it's a
37:17 17 diagnosis of exclusion, it sounds like. You're
37:19 18 ruling out other things in order to arrive at this
37:22 19 CRPS. Is that a fair assessment of how --

37:24 20 A. Correct.

37:24 21 Q. -- this diagnosis is done?

37:25 22 A. Correct.

37:26 23 Q. What are these tests, if you could just
37:28 24 kind of explain them to me just briefly.

37:31 25 A. You want me to go down the list?

37:32 1 Q. Sure. Please, yes.

37:34 2 A. Full blood count, just regular blood draw.
37:37 3 You look for inflammation markers, any abnormalities.

37:41 4 C reactive protein would be the same
37:43 5 thing. It's a very nonspecific inflammation mark in
37:47 6 your blood. It tests the same as ESR, you know, the
37:53 7 sedimentation rate. It's the same thing. Different
37:57 8 test but the same reason to do it.

38:01 9 Here it is. Serum autoantibodies due to
38:06 10 infection or rheumatologic disorders. Duplex
38:15 11 scanning for deep vein thrombosis. Standard
38:22 12 radiograph, which is X-rays. Nerve conduction
38:26 13 studies.

38:27 14 Q. Is that like an EMG?

38:31 15 A. Yes. They're the same setting. It's two
38:35 16 different tests.

38:36 17 Q. Okay. How about a bone scan? Is that
38:43 18 something that can be done as well?

38:44 19 A. A bone scan can be done. It's not part of
38:46 20 the criteria, though.

38:48 21 Q. Not a part of the Budapest criteria?

38:49 22 A. Correct.

38:51 23 Q. And should I assume when you say "the
38:53 24 criteria," that you're referring to the Budapest
38:56 25 criteria?

38:56 1 A. Yes. That's how the diagnosis is.

38:58 2 Q. Okay.

39:01 3 A. There's a lot of controversy if a bone
39:04 4 scan is indicated or not. There's no consensus.
39:08 5 Probably multiple years ago it was more common and
39:11 6 it's probably less common to do now because it is not
39:14 7 part of the -- the expert consensus view in the
39:18 8 Budapest criteria was that you do not need a bone
39:21 9 scan or any interventional procedures to diagnose
39:26 10 CRPS. It means it doesn't add on to your diagnostic
39:31 11 criteria, the formal criteria. So it's --

39:33 12 Q. Okay.

39:36 13 A. Some people do it. Some people do not do
39:39 14 it.

39:39 15 Q. Okay. The list that you've just kind of
39:42 16 gone through, those are some, I guess, objective
39:44 17 tests that can be done as opposed to listening to
39:53 18 subjective complaints of pain. Is that a fair
39:55 19 assessment?

39:55 20 A. Yes.

39:56 21 Q. Okay. And why is it important to have or
40:02 22 is it important to have objective, I guess, evidence
40:04 23 or objective test results when making a diagnosis?

40:08 24 A. Ideally, yes, you want as much objective
40:13 25 data as you can get. The medicine, of course, a big

40:19 1 part of any diagnosis; the history taking, that's
40:22 2 always subjective by itself because you have to
40:24 3 listen to what the patient tells you. So that's all
40:28 4 subjective. I mean, you got to go by what you hear
40:30 5 and then make your own opinion.

40:32 6 Then on the exam, you can hopefully get
40:35 7 more objective data and more findings and signs. So
40:38 8 those two things come together.

40:39 9 Q. Okay. And I think what you said it's
40:42 10 important to get as much as you can objective?

40:44 11 A. Yeah, if it's reasonable and if it adds
40:48 12 onto your picture and if it adds onto the diagnosis.

40:51 13 Q. Why is that? What is it about be
40:53 14 objective test results that assist you?

40:57 15 A. It doesn't always assist me but it makes
41:03 16 it easier to deal with some insurance companies or
41:07 17 lawyers or the legal side. If you have a broken bone
41:12 18 and you have an X-ray with a broken bone, it's hard
41:14 19 to argue there's no broken bone.

41:15 20 Q. Right.

41:16 21 A. Okay. If he has pain, you have all the
41:18 22 signs of pain. It sounds very reasonable, but all
41:22 23 you got to go by is what the patient tells you. It
41:25 24 makes it a little harder to say, yes, this person has
41:29 25 true pain.

41:29 1 Q. Okay.

41:30 2 A. So that's the reason that, I mean, if
41:32 3 there was an objective test that's the reason for
41:39 4 CRPS. There's no gold standard test. If this comes
41:42 5 back positive, you have CRPS. If it comes back
41:45 6 negative, you do not have CRPS. That does not exist.

41:49 7 Q. Right. So the objective stuff helps kind
41:53 8 of take the guesswork out of making a diagnosis? It
41:56 9 sheds more light on the symptoms and the issues and
42:01 10 the problems and assists you in making a diagnosis?

42:04 11 A. If there were clear objective tests, then
42:07 12 that's correct. Yes.

42:07 13 Q. Okay. Let's talk a little bit about --
42:25 14 let's turn to page 125 at the top. This is an
42:43 15 article that's titled "Complex Regional Pain
42:46 16 Syndrome" from the BMJ. What is the BMJ?

42:51 17 A. British Medical Journal.

42:54 18 Q. Do you review that regularly on your own?

42:57 19 A. I used to, yes. But not anymore.

42:59 20 Q. Okay.

43:00 21 A. I used to review it a lot more but not as
43:04 22 much anymore.

43:04 23 Q. Okay. It's not one of the two that you
43:12 24 referenced awhile ago saying that you read?

43:14 25 A. Every month, no.

43:15 1 Q. Okay. Which ones do you read every month?

43:20 2 A. The Pain Journal and the other one is the
43:25 3 Physical Medicine Rehabilitation Journal.

43:27 4 Q. All right. So let's look at where it says
43:30 5 125 at the top. It goes through your diagnosis here
43:34 6 again. Starting with during, it's on the left side
43:49 7 about midway through.

43:53 8 A. Yes. "During the diagnostic process,
43:55 9 objective tests may be needed to rule out other
43:58 10 conditions. This could account for the signs of
44:01 11 symptoms that would be otherwise used to support
44:03 12 diagnosis of CRPS."

44:04 13 Q. Right.

44:05 14 A. "Given that CRPS is a diagnosis of
44:07 15 exclusion."

44:08 16 Q. Okay. And you agree with that?

44:09 17 A. Yes.

44:09 18 Q. Okay. Are you familiar with the IASP 2012
44:25 19 criteria for diagnosis of CRPS?

44:27 20 A. The IASP is involved with the Budapest
44:33 21 criteria.

44:33 22 Q. Yeah. It's the same thing; is that right?

44:35 23 A. I believe it's the same thing. It's
44:36 24 published through the ISPA.

44:38 25 Q. Okay.

44:39 1 A. As far as I know.

44:40 2 Q. Okay.

44:44 3 A. Correct.

44:45 4 Q. All right. Are you at all familiar with,
44:50 5 it looks like the IASP discussed a more stringent, I
44:57 6 guess, decision tool for the diagnosis of CRPS in
45:00 7 research settings?

45:02 8 A. Yes. I know.

45:04 9 Q. What are your thoughts on that?

45:05 10 A. There's a paper out that shows that those
45:13 11 two are really not different as much as people
45:15 12 thought initially.

45:16 13 Q. Okay.

45:16 14 A. One extra, one extra sign or one extra
45:21 15 symptom out of the two boxes that you have to fulfill
45:24 16 for the research criteria.

45:25 17 Q. Okay.

45:26 18 A. The only reason that they did this was
45:30 19 they wanted to increase the specificity -- the
45:35 20 sensitivity is the same almost. Basically the same.
45:38 21 But it's more specific with the research criteria
45:41 22 that's supposed to go up a little bit higher.

45:43 23 Q. Okay.

45:44 24 A. Which is what they thought was important
45:45 25 for the research.

45:46 1 Q. Okay. And I was actually going to ask you
45:49 2 about that here in a minute. What is the difference
45:52 3 between specificity and --

45:54 4 A. Sensitivity.

45:54 5 Q. Sensitivity, yes. Yes.

45:56 6 A. To explain it in easy words is sensitivity
46:04 7 is you want to have criteria that catch everyone that
46:10 8 has CRPS. Okay? If you've got a thousand people
46:14 9 here and you know a hundred out of those thousand
46:19 10 people have CRPS, the sensitivity is supposed to pick
46:23 11 up all hundred. So you might pick up 200 people, but
46:27 12 you're not supposed to miss anyone.

46:29 13 Q. Okay.

46:29 14 A. Okay? In other words, make it easy for
46:33 15 everybody to understand, for example, HIV. If you do
46:37 16 a screening test, you don't want to miss anyone that
46:41 17 has the infection.

46:43 18 Q. Right.

46:44 19 A. So if you catch a couple more people,
46:48 20 you're fine with it because then you look closer.

46:50 21 Q. Okay.

46:50 22 A. But you want to catch everyone that has
46:53 23 it. You don't want to have any false negatives.

46:56 24 Q. Right. False positives, you'd rather have
46:58 25 a false positive?

46:59 1 A. You'd rather have a false positive as
47:01 2 compared to a lot of false negatives. That's
47:04 3 sensitivity.

47:05 4 Q. Okay.

47:05 5 A. The more specific test, this means that
47:10 6 out of the people that you catch, how many truly have
47:12 7 that. So that the, for example, the confirmation
47:17 8 testing in HIV, you really don't want to give someone
47:21 9 a false positive if they don't have it.

47:25 10 Q. Uh-huh.

47:26 11 A. You don't want to tell someone, hey, you
47:28 12 got HIV. You're infected, infected or not. The
47:32 13 screening test, you're fine because you want to catch
47:34 14 everyone. You want to have a wide net.

47:39 15 But the second test for HIV, you really
47:43 16 want to don't tell patients, oh, yeah, you're
47:45 17 positive for something if you don't have it.

47:46 18 Q. Right.

47:47 19 A. That's specificity.

47:50 20 Q. So it's a different test that's maybe more
47:52 21 expensive for something that wasn't done the first
47:52 22 time around?

47:52 23 A. For HIV, that would be correct because
47:55 24 you've got to test. Correct.

47:57 25 Q. And so the case of this, I guess,

47:59 1 heightened criteria here, what they're trying to do
48:03 2 was increase the specificity; is that right?

48:05 3 A. That's what they're hoping to, yes.

48:08 4 Q. Okay. And do you have any opinion as to
48:12 5 whether or not that there's any merit to that?

48:15 6 A. I don't have an opinion of that. I have
48:21 7 somewhere a paper that deals with that. So maybe
48:24 8 find it.

48:24 9 Q. Sure.

48:26 10 A. Give me one second. I don't know if you
48:44 11 have that in your file but it was useful. My report,
48:49 12 it's in the literature there.

48:50 13 Q. Okay. Thank you.

48:51 14 A. Okay. I will quote from the Pain 2010
49:23 15 August which is -- the first author is Norman Harden
49:34 16 and Validation to Proposed Diagnostic Criteria For
49:39 17 Complex Regional Pain Syndrome. "In conclusion, the
49:43 18 current studies supports the validity of the Budapest
49:47 19 criteria for CRPS and further highlights the
49:51 20 superiority of the current IASP criteria. These
49:55 21 results did not strongly support utility of separate
50:00 22 Budapest criteria for research purposes
50:03 23 specifically." So I think that answers your
50:08 24 question.

50:08 25 Q. Okay. So they've concluded that --

50:10 1 A. They concluded we do two different things
50:12 2 but we really don't need two different things.

50:14 3 Q. Okay.

50:15 4 A. So that -- yeah.

50:16 5 Q. Okay. Fair enough.

50:21 6 A. And results of the study provides support
50:23 7 for proposals to adopt the Budapest criteria as a
50:32 8 standard for clinical CRPS diagnosis.

50:39 9 Q. Okay. So let's look a little bit at the
50:42 10 Budapest criteria.

50:44 11 A. Yes. Okay.

51:18 12 Q. Okay. So in your own words, if you don't
51:23 13 mind, explain to me how the Budapest criteria works.

51:28 14 A. The Budapest criteria work that you have
51:37 15 some symptoms that the patient reports to you and
51:39 16 some signs that you observe or find on the
51:42 17 examination.

51:43 18 Q. Okay.

51:44 19 A. Just basically two different boxes. One's
51:46 20 for the symptoms. One's for the signs. Symptoms is
51:49 21 reported to me in the history taking. And then, of
51:53 22 course, I ask the proper questions. And signs are
51:57 23 typically what you would find on the exam.

51:58 24 Q. Okay. Now, are there four different
52:02 25 categories of symptoms or four different

52:04 1 categories --

52:05 2 A. Yes.

52:05 3 Q. -- of --

52:06 4 A. Correct.

52:07 5 Q. Criteria, I guess?

52:07 6 A. Yes.

52:08 7 Q. I'm trying to think of the appropriate
52:09 8 word to use.

52:10 9 A. Categories. Four different categories.

52:12 10 Q. Call them four categories of things that
52:14 11 you're looking for.

52:15 12 A. That is correct.

52:15 13 Q. All right. And those are -- let me pull
52:21 14 it up. We have vasomotor, pseudomotor, motor/trophic
52:24 15 and pain. Are those the four?

52:27 16 A. Well, if you replace the word pain with
52:32 17 sensory. My four criteria are sensory, vasomotor,
52:40 18 pseudomotor/edema and motor/trophic.

52:46 19 Q. All right. Explain to me what vasomotor
52:49 20 is. What does that mean?

52:50 21 A. Any kind of asymmetry, skin color changes,
52:56 22 temperature changes. Vasomotor means anything that
53:00 23 has to do with the blood vessels. So any changes in
53:04 24 the blood vessel findings.

53:06 25 Q. Okay.

53:09 1 A. It can be -- that can be red skin. That
53:12 2 can be spots on the skin. That can be temperature
53:17 3 changes. That can be possibly even some asymmetry
53:21 4 that you can see almost like an edema type of
53:24 5 findings.

53:24 6 Q. Okay. So talk about temperature
53:27 7 differences. Would thermograph, would that be a
53:30 8 useful tool to determine whether or not there's a
53:33 9 difference in temperature between, say, a patient's
53:35 10 left arm and their right arm?

53:36 11 A. You can use that, yes.

53:38 12 Q. Okay. And would you agree one degree
53:45 13 Celsius is sort of the difference that you're looking
53:49 14 for or the minimum, Delta or change between the two
53:53 15 or difference?

53:54 16 A. Yes. I think between half a degree to one
53:58 17 degree Celsius, yes.

53:59 18 Q. Okay. All right. Now we're going to go
54:06 19 to pseudomotor/edema.

54:10 20 A. Yeah.

54:11 21 Q. Which edema is swelling; is that correct?

54:13 22 A. Swelling, sweating changes, asymmetry.
54:17 23 Correct.

54:17 24 Q. Okay. And then we got motor/trophic.
54:20 25 What is that?

54:21 1 A. Any kind of tremor, weakness, range of
54:28 2 motion changes, any kind of muscle atrophy later
54:35 3 stages, nail changes, skin changes, hair changes.

54:41 4 Q. Okay. And sensory?

54:50 5 A. Report of hyperalgesia or allodynia which
54:55 6 means -- allodynia means pain to a stimulus that's
54:59 7 not really painful.

55:01 8 Q. Out-of-proportion pain?

55:02 9 A. If you want to call it out of proportion
55:05 10 pain, yes. Hyperalgesia just means it is more
55:08 11 painful than you would expect it to be. Any stimulus
55:10 12 that you do.

55:11 13 Q. All right. The vasomotor, that's
55:15 14 something that you could observe, is that correct, if
55:17 15 it were present?

55:18 16 A. Yes.

55:18 17 Q. Okay. And pseudomotor, that's something
55:21 18 that --

55:21 19 A. Well, you've got to be careful. That's
55:24 20 the difference between signs and symptoms.

55:25 21 Q. Correct.

55:26 22 A. The first thing -- are you talking about
55:28 23 signs now or are you talking about symptoms?

55:31 24 Q. I'm talking about signs.

55:33 25 A. Signs in my exam.

55:34 1 Q. Yes.

55:35 2 A. Yes.

55:35 3 Q. I'm talking about things that you can
55:37 4 potentially observe in your exam.

55:39 5 A. Yes.

55:39 6 Q. The vasomotor, those types of things you
55:42 7 could observe in your exam, the presence of
55:44 8 difference in skin color, temperature, that's
55:46 9 something you could see. The pseudomotor which is
55:49 10 swelling or sweating is something that you can
55:51 11 observe or see in your examination. The
55:54 12 motor/trophic tremors, that's something you can see.

56:00 13 I guess to a certain extent you have to
56:02 14 rely on your patient for complaints of weakness or is
56:06 15 that something you can measure?

56:07 16 A. You measure that.

56:08 17 Q. Okay.

56:08 18 A. You measure.

56:09 19 Q. Like grip strength?

56:10 20 A. Yeah. Yeah.

56:11 21 Q. Okay. And range of motion changes, that's
56:13 22 something to be measured by a physical therapist?

56:16 23 A. Yes. And you can also, if you see them in
56:19 24 clinic and you examine them, you will see that as
56:22 25 well.

56:22 1 Q. And then sensory, now that's something you
56:24 2 have to rely purely upon your patient for; is that
56:28 3 correct? Or are there ways --

56:29 4 A. There's ways. There's ways to measure
56:32 5 that as well. You see if they guard their arm. You
56:34 6 see if you inadvertently touch the area and it causes
56:38 7 pain. So you need some cooperation with the patient
56:47 8 for that as well. But you -- there is patients you
56:53 9 can't even touch their skin and you can tell it's
56:55 10 very painful. So that counts as a positive, yes.

57:00 11 Q. So that you're relying, I guess, on their
57:03 12 response to the stimulus?

57:05 13 A. Correct.

57:06 14 Q. It's not something that you can just look
57:08 15 at and say --

57:09 16 A. Correct. You cannot put a probe on there
57:13 17 and the probe gives you a number. Correct.

57:15 18 Q. Okay. All right. So we have gone
57:20 19 through, I guess, some of the objective tests that
57:24 20 can be used, the blood test, thermography, the bone
57:28 21 scan, the X-rays, those types of things. And then we
57:32 22 just talked about, I guess, the more subjective
57:34 23 things which constitute the Budapest diagnostic
57:37 24 criteria, which is sort of the gold standard in
57:41 25 diagnosing CRPS; is that correct?

57:42 1 A. Yeah. But I would not call that
57:43 2 subjective.

57:44 3 Q. Okay.

57:44 4 A. Budapest criteria are all those things
57:47 5 which we talked about.

57:48 6 Q. Which can be objective?

57:49 7 A. There are two different categories. And
57:54 8 the Budapest criteria, one of the points they have is
57:57 9 that there's no other diagnosis that can explain it
58:01 10 better. That's when a differential diagnosis comes
58:03 11 in. That's why you do some of the other tests that
58:06 12 we did, that were done even before I saw the patient
58:09 13 to make sure there's nothing else going on. Budapest
58:13 14 criteria is four different points that you have to
58:16 15 fulfill.

58:17 16 Q. Okay. And the other stuff is helpful
58:21 17 stuff. The other objective tests? They assist you
58:26 18 in ruling out other potential --

58:28 19 A. Correct. Correct. Yes. That's the, you
58:30 20 know, the last criteria for the Budapest criteria.
58:33 21 There's no other diagnosis that better explains the
58:35 22 signs and symptoms. So that brings us in, and then we
58:39 23 have to decide is it reasonable, for example, to do
58:42 24 an MRI of the cervical spine. Is it reasonable to do
58:46 25 an EMG and a nerve conduction test? Is it reasonable

58:50 1 to do an X-ray? That's what we have to decide.
58:54 2 Clinically, is it reasonable to do that? Does it
58:57 3 look like it could come from the cervical area? Then
59:00 4 you better get an MRI to make sure you don't have any
59:04 5 herniated discs or a compressed nerve --

59:08 6 Q. Okay.

59:08 7 A. -- that could explain that. You think,
59:10 8 oh, this looks like it could be carpal tunnel
59:13 9 syndrome. Well, then, you look clinically and maybe
59:16 10 you ought to get an EMG nerve conduction test to see
59:21 11 if that's what's going on, if the median serve is
59:24 12 damaged.

59:24 13 Q. Okay.

59:25 14 A. That's one of the criteria, including the
59:29 15 Budapest criteria. They don't tell you exactly what
59:31 16 to do to rule out other things. That's based on your
59:37 17 clinical diagnosis. It's based on your education and
59:40 18 background. That's why we do a residency. That's
59:42 19 why we do a fellowship. And that's part of the
59:45 20 criteria. That's included in those.

59:46 21 Q. Okay.

59:47 22 A. It's not only the signs and symptoms.
59:49 23 It's more than that.

59:50 24 Q. Okay. I appreciate you clarifying that.
59:57 25 You're talking about this distinction between

59:59 1 symptoms that are reported and signs.

00:00 2 A. Yes.

00:00 3 Q. And in order to, I guess, reach a
00:05 4 diagnosis of CRPS, you've got to have the presence of
00:08 5 a certain number of signs and a certain number of
00:10 6 symptoms.

00:10 7 A. Yes.

00:11 8 Q. And what are those numbers?

00:13 9 A. One symptom in three of the four
00:23 10 categories that we talked about and one sign in two
00:29 11 or more of the four categories.

00:39 12 Q. Okay. We'll come back to some of this
00:52 13 literature here in a moment. But what I'd like to do
00:55 14 now is -- well, let me ask you a couple more
01:02 15 questions before we turn to the medical records.

01:04 16 Typically how long does it take for these
01:06 17 signs and symptoms to arise or develop after the
01:11 18 traumatic injury?

01:13 19 A. Well, it's variable. It's not -- there's
01:17 20 not one rule that fits everything. Oftentimes it's
01:24 21 fairly soon, within weeks, yeah, typically.

01:31 22 Q. Okay.

01:31 23 A. Sometimes I'd say someone has a total knee
01:37 24 replacement, they are expected to have pain. So it's
01:39 25 very, you know, three days, five days, ten days

01:42 1 afterwards might be very difficult to say, oh, this
01:46 2 is CRPS.

01:48 3 Q. Right.

01:48 4 A. And that's -- and if you look at the
01:50 5 Budapest criteria, again, is there anything that
01:54 6 better explains that, you know, exclusion? Well, you
01:57 7 had a knee replacement, we expect you to have this
01:59 8 pain right now. So that explains it until proven
02:03 9 otherwise.

02:05 10 But typically that's not -- it's not you
02:09 11 have a trauma and then one year later --

02:13 12 Q. Okay.

02:13 13 A. -- this shows up. That is unlikely and
02:15 14 uncommon.

02:16 15 Q. Okay. So let's ask it this way. So would
02:20 16 it be safer to say then that the less the trauma is,
02:26 17 the sooner you would expect to see CRPS signs and
02:31 18 symptoms because the chance that they're being
02:35 19 masked, going back to your example with the knee
02:37 20 replacement, the chance that they're being masked by
02:39 21 something else would be less because you would expect
02:42 22 them to recover from a trauma that is less than a
02:46 23 total knee replacement? Does that make sense?

02:49 24 A. I know what you're trying to say but I'm
02:51 25 not sure if I can support that.

02:52 1 Q. Okay.

02:53 2 A. Because, you know, when you say would mean
02:55 3 the lesser trauma, the more you have CRPS, that's not
02:59 4 correct.

02:59 5 Q. Or the sooner you would expect to see
03:01 6 CRPS?

03:02 7 A. No.

03:02 8 Q. No?

03:03 9 A. I don't think you can say that.

03:05 10 Q. Okay. Okay.

03:06 11 A. I don't think you can say that.

03:08 12 Q. Okay. How about let's turn back to an
03:18 13 article that was printed off the JEBMH --

03:23 14 MR. KRAEUTER: What page are we on?

03:25 15 Q. (By Mr. Meader) -- Web site. So this
03:26 16 would be page 134. Change that. 133.

03:47 17 Okay. So have you reviewed this article
03:49 18 before?

03:49 19 A. I have seen the article. I'm not sure if
03:54 20 I reviewed it in detail. I do not believe so. I've
03:57 21 seen it, yes, because it was provided to me. Yes.

04:03 22 Q. Okay.

04:03 23 A. I've seen it. But I do not believe that I
04:06 24 thought it was -- I did not include it in my report
04:13 25 because I did not think that it added anything from

04:18 1 my understanding.

04:18 2 Q. Okay. Let me ask you this: Let me direct
04:21 3 your attention to, it's got the different stages.

04:26 4 Okay?

04:26 5 A. Yeah.

04:26 6 Q. Stage 1, Stage 2, stage 3?

04:29 7 A. Yes.

04:30 8 Q. Are you familiar with the different stages
04:32 9 of CRPS?

04:33 10 A. I am familiar that this used to be common
04:38 11 to use the stages, which is not common anymore.

04:42 12 Q. Okay. I want to ask you about that. That
04:44 13 was my understanding, too, that it had been sort of
04:48 14 rebutted, I guess, by some literature. But I'd like
04:51 15 to direct your attention to the date of this article.

04:55 16 A. Yes.

04:56 17 Q. It looks like --

04:58 18 A. Yes.

04:58 19 Q. -- August or, I'm sorry, October of 2015?

05:04 20 A. Okay.

05:04 21 Q. Which, correct me if I'm wrong, but I
05:12 22 believe is after the point in time where sort of the
05:15 23 three-stage progression was thrown to the wayside?

05:19 24 A. Well, I didn't think it was thrown to the
05:23 25 wayside. It was just more.-- looked at it more

05:26 1 critically.

05:26 2 Q. Okay.

05:27 3 A. Noted, you know, noticing that patients
05:29 4 don't progress always Stage 1, then Stage 2, then
05:33 5 Stage 3.

05:34 6 Q. Okay.

05:35 7 A. So . . .

05:36 8 Q. Is this article then refuting that and
05:38 9 saying that they do go through Stage 1, Stage 2,
05:45 10 Stage 3, since this was published after, several
05:47 11 years after, I believe, that other research?

05:49 12 A. I didn't think -- I did not review this
05:59 13 article very detailed, but, for me, this was more
06:26 14 just that person's opinion. I don't think -- I don't
06:28 15 know if this article was peer reviewed. It wasn't a
06:31 16 research article. I think this was more a summary
06:37 17 what this person thought.

06:38 18 Q. Okay.

06:38 19 A. So if he puts in stages, maybe he believes
06:41 20 in it still. I can't say. I know that a lot of
06:45 21 other people got away somewhat from starts with 1
06:50 22 then it goes to 2, then it goes 3. It's always a
06:53 23 linear progression. That's not the current thinking.
06:57 24 anymore.

06:57 25 Q. Okay.

06:58 1 A. You might still think typically it starts
07:02 2 out a certain way and progresses a certain way, but
07:05 3 I'm not sure that people use a lot of stages like
07:09 4 that anymore.

07:09 5 Q. Now, the first stages that came out, were
07:22 6 they based on temperatures changes in the skin, going
07:24 7 from the first stage it was hot, second stage it was
07:26 8 cold?

07:26 9 A. That used to be the thinking, yes.

07:26 10 Q. Okay.

07:30 11 A. Yeah. But I do not believe that it is
07:32 12 still their thinking on that.

07:34 13 Q. Okay. And what I'm seeing here is these
07:36 14 look like different stages. I don't see hot versus
07:41 15 cold, Stage 1, Stage 2. I guess what I'm getting at,
07:45 16 maybe you can just look at them and tell me if you
07:48 17 disagree or agree with how he's kind of got these
07:50 18 things broken out into stages.

07:51 19 A. Well, he might have just looked at some
07:57 20 old papers and just copied it over.

07:59 21 Q. Okay. Do you disagree or agree kind of
08:14 22 what he's got there for Stage 1, Stage 2 and Stage 3?

08:15 23 A. Well, I don't see it in stages anymore. I
08:19 24 see it here. I don't see it in stages anymore.

08:20 25 Q. Okay. All right.

08:23 1 A. So I'm not going by clear of Stage 1 we
08:25 2 only expect this, Stage 2 we only will expect this.
08:29 3 It's not how you classify it.

08:31 4 Q. Okay. How about -- and this is maybe
08:35 5 asking the same thing, just a little bit different
08:37 6 way. But it says three months from onset, okay, you
08:41 7 expect severe burning pain at the site of injury,
08:44 8 muscle spasm, joint stiffness, restricted mobility,
08:47 9 rapid hair and nail growth and vasospasm affecting
08:51 10 color and temperature of skin.

08:53 11 A. Yes.

08:54 12 Q. And you would expect to see that, you
08:55 13 know, three months from onset. Would you agree with
08:59 14 that or disagree with that?

09:00 15 A. No, I don't agree with that. I don't
09:18 16 agree that they say -- he said it's the first three
09:20 17 months you don't see anything. I don't agree with
09:22 18 that.

09:23 19 Q. Okay.

09:24 20 A. So if he says Stage 1 starts three months
09:28 21 from onset, what happens the first three months?

09:31 22 Q. I think what he's saying is zero to three
09:34 23 months is my understanding. Somewhere between zero
09:37 24 and three months.

09:37 25 A. He says Stage 1 three months from onset.

09:41 1 So, well, maybe --

09:43 2 Q. I guess my interpretation was --

09:44 3 A. From onset, maybe from onset of symptoms?

09:47 4 Q. I interpreted onset to mean from the
09:53 5 event.

09:54 6 A. Yeah, but he can also say maybe onset of
09:57 7 symptoms.

09:57 8 Q. Maybe that's just not clear what he's
10:01 9 saying.

10:01 10 A. Again, I think, again, the way he -- and
10:04 11 you also have to look at the -- one second. Okay.
10:09 12 So the way he puts the stages in here, I know this is
10:12 13 published 2015. But if you look at the literature,
10:16 14 he quotes something from 2009. This looks like a
10:28 15 pain review. And this is only one two-page article.
10:34 16 Then he quotes something from a textbook of Pain from
10:38 17 2006.

10:40 18 So it's in Waldman he quotes. I think, I
10:47 19 notice Steve Waldman I believe is the same Waldman
10:51 20 that wrote a lot of books. So he might have quoted
10:55 21 this from a textbook. I'm not sure. Textbooks are
10:58 22 always, by the time they're published, they're kind
11:00 23 of outdated because it takes years to publish one.
11:02 24 And so I -- it used to be driven by Stage 1, 2, 3.

11:08 25 Q. Right.

11:08 1 A. Dystrophy, atrophy stage. But, again,
11:13 2 nowadays it's more of a continuum and it's more of
11:19 3 stages running to one another. It's not separated
11:21 4 anymore.

11:22 5 Q. All right. Do you agree --

11:23 6 A. Hot and cold. The vascular symptoms,
11:30 7 there's no reason that you have to have a hot
11:33 8 extremity right away. You couldn't possibly have a
11:36 9 cold extremity. I mean, it's the same vascular
11:40 10 response. One constricts the vessels. One opens the
11:45 11 vessels more.

11:46 12 Q. Okay. So do you know, I guess, as we sit
11:56 13 here today, what part, if any, of this article you
12:00 14 may have relied upon in forming your opinion?

12:02 15 A. I'll be honest. I don't think I relied at
12:06 16 all on this article. I can tell you that -- I can
12:09 17 tell you exactly -- this is from Dr. Palta Saroj.
12:17 18 Let me tell you because I don't think I did. No, I
12:21 19 did not look at that.

12:22 20 Q. Okay.

12:23 21 A. I did not -- I did not feel that it met my
12:27 22 standard for literature.

12:29 23 Q. Okay.

12:30 24 A. That I felt that it adds anything to me or
12:35 25 that it's peer reviewed, I just did not feel that.

12:37 1

Q. Okay.

12:38 2

A. And so I did not look at that.

12:40 3

Q. Fair enough.

12:41 4

A. Well, I looked at it but I did not include

12:44 5

it in my report.

12:45 6

Q. Sure. I got you. So you said you

12:52 7

diagnosed CRPS around a hundred times maybe over the

12:56 8

past or more possibly. We don't know exactly. It's

12:59 9

been 20 years.

13:00 10

A. I'm sure I've seen more than a hundred,

13:02 11

yes. It doesn't mean I was the first one to diagnose

13:06 12

it in every single patient. In fellowship, you see a

13:08 13

lot of patients that are already in the practice with

13:11 14

CRPS.

13:13 15

Q. Out of the 100 that you've either

13:18 16

diagnosed or seen of CRPS, have there been any

13:21 17

patients where they've gotten better, their CRPS

13:25 18

symptoms have resolved and they've made a recovery?

13:27 19

A. I've seen patients that have improved,

13:37 20

yeah. I don't know if it -- I don't know if I've

13:42 21

seen patients that had true CRPS with complete

13:47 22

resolution. I've seen patients that have improved.

13:49 23

I might have seen some patients that got very, very

13:53 24

good results, yes.

13:54 25

Q. Okay.

13:54 1 A. Yes.

13:55 2 Q. All right. Let's go through Ms. Orr's
14:01 3 medical records here, the ones provided by your
14:03 4 office.

14:06 5 A. My clinic notes?

14:07 6 Q. Yes. And also I'm going to go through
14:10 7 Kamaleson's, too. We'll start with those. We'll
14:13 8 kind of just go through them in chronological order.

14:15 9 A. Okay. Let me get those. Kamaleson's.
14:35 10 They're somewhere.

14:35 11 Q. Okay. First one I have is August 10,
14:37 12 2015.

14:59 13 A. I know I've reviewed it. I don't know --

15:01 14 Q. It's page 1 of 137.

15:06 15 A. Oh, you've got it here. Okay.

15:37 16 Q. And so this August 10, 2015, this is when
15:40 17 she was seen by Dr. Kamaleson.

15:42 18 A. Okay.

15:42 19 Q. And how long have you worked with
15:46 20 Dr. Kamaleson?

15:48 21 A. Well, I started in my job February 2014.
15:55 22 So he works in a different part of the office and
16:00 23 I'll be in a different office altogether. So I don't
16:03 24 work with him. He's one of the orthopedic
16:07 25 physicians. I'm one of the pain physicians. We are

16:09 1 in different parts of the office. So I don't
16:11 2 think -- we did not work next to one another.

16:13 3 Q. Okay. You're familiar with his abilities,
16:15 4 I take it?

16:15 5 A. Yes. He's one of the partners. I know --
16:20 6 I believe he's fellowship trained, as far as I know.
16:22 7 He's board certified, as far as I know, yes.

16:24 8 Q. Qualified, good doctor?

16:26 9 A. Yes.

16:27 10 Q. Okay. If I could direct your attention to
16:36 11 the right hand --

16:37 12 A. Yes.

16:37 13 Q. -- section there.

16:39 14 A. Yeah.

16:40 15 Q. And just to be clear -- let me back up
16:43 16 before we go through this. What's your understanding
16:46 17 of how Ms. Orr was injured?

16:49 18 A. My understanding is when I asked her that
16:51 19 a dressing room frame or door frame fell on her right
16:55 20 forearm in, I believe, April 2015. That's my
17:03 21 understanding.

17:04 22 Q. Okay. Are you aware of whether or not she
17:07 23 told you it struck her on her body anywhere else
17:10 24 before it hit her forearm?

17:11 25 A. Let me look at my note because that's --

17:17 1 the patient reports that in April a door frame fell
17:20 2 on the right forearm and then she developed right
17:22 3 forearm pain. This has been worsening. I'm not
17:29 4 aware it struck her anywhere else. Not in my notes.
17:35 5 I can't recall if she told me anything different, but
17:37 6 I have to go by my note of October 27, 2015, and
17:41 7 that's what she told me.

17:42 8 Q. Okay. Would it be important to know if it
17:45 9 struck her anywhere else before it struck her right
17:47 10 forearm?

17:48 11 A. No.

17:48 12 Q. Why not?

17:49 13 A. Because if she -- if it struck her right
17:56 14 forearm and she has pain developing from that area,
17:59 15 that's what I need to know. For me it would be not
18:04 16 as important if it hit her in the back, but she
18:09 17 doesn't have any back pain. That would not be
18:11 18 important for me.

18:12 19 Q. What if she had lied on your understanding
18:15 20 of the force that struck her if you knew it struck,
18:20 21 you know, a different part of her body first?

18:22 22 A. No. Because I don't know what door frame
18:25 23 it was. I don't know the weight of it. I don't know
18:27 24 the details of it. If you get hit by a stray bullet
18:34 25 that hits something else before it hits you, it can

18:36 1 still kill you. So the force itself I don't think
18:41 2 determines the CRPS.

18:43 3 Q. Okay. All right. So let's go back.
18:47 4 Let's look at what we've got. Right hand and left
18:49 5 hand here in this record. And if you wouldn't mind,
18:56 6 just take a moment and look through that.

19:01 7 A. Okay. Okay.

19:20 8 Q. All right. And if you don't know the
19:24 9 answer to this, just please tell me you don't know,
19:26 10 but when -- because I'm assuming you weren't present
19:29 11 when Dr. Kamaleson did this, you know, did this
19:31 12 examination. But what would he have done as part of
19:35 13 his examination to get the information he needed to
19:39 14 fill in each of these sections here? Would they just
19:42 15 be a visual examination or would it be hands-on and
19:45 16 examine her that way? What in your experience would
19:49 17 he have likely done?

19:49 18 A. I don't know.

19:50 19 Q. You don't know?

19:51 20 A. I've never seen him examine patients. So
19:54 21 I don't know how he came to this.

19:56 22 Q. Okay. Would you agree with me then that
20:00 23 his findings were identical for the left hand and
20:03 24 right hand?

20:04 25 A. For the written note from August 10, 2015,

20:22 1 the report for the right hand is identical to the
20:27 2 report from the left hand. Yes.

20:29 3 Q. Okay. So if we turn back to these
20:35 4 Budapest diagnostic criteria, were there -- let's
20:41 5 start with the vasomotor -- were there any positive
20:46 6 symptoms or signs for vasomotor indicators which
20:50 7 would support a finding of CRPS?

20:52 8 A. You have to ask him that.

20:56 9 Q. Just based on what's in the note here.

21:01 10 A. For the signs, no.

21:04 11 Q. Okay.

21:05 12 A. It's normal.

21:08 13 Q. Same for the symptoms, too?

21:09 14 A. Wait. I didn't look at the symptoms
21:14 15 because symptoms would be history.

21:16 16 Q. History. Okay.

21:28 17 A. Well, in the symptoms there's no positive
21:30 18 signs, no negative signs.

21:32 19 Q. Okay. And let's go to pseudomotor. Would
21:40 20 you agree with me that using the Budapest diagnostic
21:44 21 criteria, there's no signs or symptoms indicating, I
21:47 22 guess, the presence of those pseudomotor criteria?

21:52 23 A. Correct.

21:53 24 Q. Same thing with the motor/trophic
21:58 25 criteria. No signs or symptoms?

22:01 1 A. There is no signs or symptoms; correct.

22:04 2 Q. Okay. And there is no sign, I guess, of
22:15 3 sensory as well; is that true?

22:20 4 A. Well, he did not report sensory exam, so I
22:32 5 cannot answer that.

22:33 6 Q. But it's just not present in this report?
22:37 7 Nothing indicating that; correct?

22:38 8 A. In the report, there's no sensory exam;
22:41 9 correct.

22:41 10 Q. Have you spoken with Dr. Kamaleson about
22:44 11 Ms. Orr?

22:44 12 A. Specifically I don't think so.

22:58 13 Q. Okay.

22:59 14 A. I do not believe. I might have talked
23:00 15 with him at a meeting with Mr. Krauter, I believe,
23:06 16 when -- I believe when I left, he came in or the
23:10 17 other way around. But I do not believe that we had a
23:19 18 true discussion about the findings, no.

23:20 19 Q. All right. And I guess what I'm getting
23:23 20 at is it looks like you, in your expert report, you
23:29 21 relied on his examinations and his records and his
23:33 22 notes when you reach a conclusion. And I just want
23:36 23 to make sure that there weren't any conversations
23:38 24 that you may have had with him that gave you
23:41 25 additional information that's not contained in these

23:43 1 notes.

23:43 2 A. I do not believe that there was any
23:45 3 discussion beyond, no.

23:47 4 Q. All right. So using the Budapest
23:54 5 diagnostic criteria, as of August 10th, 2015, you
23:58 6 couldn't say that she had CRPS, correct, based on
24:01 7 what's in these notes?

24:02 8 A. Correct. I couldn't say anything because,
24:11 9 again, his note -- just based on his note only, yes.

24:15 10 Q. Right. But he doesn't, I guess, report
24:18 11 the signs and symptoms necessary to support CRPS
24:22 12 diagnosis in his notes?

24:24 13 A. Correct.

24:25 14 Q. And that would have been roughly four
24:33 15 months, give or take, after the incident; correct?

24:40 16 A. Yes. Except for the assessment which he
24:44 17 reports right upper extremity RSD.

24:47 18 Q. Correct. But he does not --

24:50 19 A. He does not specify.

24:52 20 Q. The presence of the symptoms or signs?

24:54 21 A. Correct.

24:54 22 Q. Basically he's just, it looks like, and
24:57 23 you may not know this, but my take on it is that's
25:00 24 what she told him her diagnosis was from another
25:03 25 physician?

25:04 1 A. I don't know.

25:04 2 MR. KRAEUTER: Object to form.

25:05 3 MR. MEADER: Okay. I'll have to ask him
25:07 4 that question, I guess.

25:08 5 THE WITNESS: You'll have to ask him, yes.

25:11 6 MR. MEADER: He's the best person to
25:13 7 answer that one.

25:14 8 Q. (By Mr. Meader) The Phalen's test, is that
25:28 9 used to diagnose carpal tunnel syndrome?

25:30 10 A. It's one part of the test, yes.

25:32 11 Q. What would be the significance of the
25:36 12 positive Phalen's test?

25:38 13 A. The idea behind the Phalen's test is to
25:47 14 put some pressure on the median nerve of the wrist to
25:50 15 cause a stress on the median nerve of the wrist and
25:53 16 see if you get the typical -- well, that's this one
25:56 17 and this one. Two different Phalen's and reverse
25:59 18 Phalen's, yes.

26:00 19 Q. Okay.

26:00 20 A. It's just a test that gives you a first
26:07 21 screening for carpal tunnel syndrome.

26:10 22 Q. Okay. All right. So let's move on to her
26:16 23 next visit. And I believe it, again, was this
26:20 24 Dr. Kamaleson and I don't think those are -- although
26:27 25 these pages are in order, the records are not in

26:29 1 order. So it's page 27. Okay. So this is the visit
26:40 2 from September 23rd, 2015.

26:44 3 A. Yes.

26:45 4 Q. And it looks like the right upper
26:47 5 extremity pain is improving, according to his note.

26:55 6 A. No. She had limited motion. She feels
26:58 7 the pain has not quite improved that.

27:00 8 Q. Okay.

27:01 9 A. She feels the pain has not quite improved
27:12 10 yet.

27:13 11 Q. Okay. But she's had an improvement in her
27:17 12 range of motion?

27:17 13 A. Yes.

27:20 14 Q. And this looks like this was after some
27:24 15 physical therapy, I guess, that she went to?

27:26 16 A. She was going through physical therapy;
27:29 17 correct. She started physical therapy.

27:30 18 Q. Okay. And then again it looks like
27:38 19 Dr. Kamaleson reviewed or examined her right elbow,
27:42 20 left elbow, right hand and left hand, and both the
27:49 21 right and left elbow and the right hand and left
27:52 22 elbow were noted as being the same?

27:56 23 A. Correct.

28:04 24 Q. All right. Now, I know that RSD is, is
28:15 25 that still a different diagnosis than CRPS or is CRPS

28:19 1 sort of enveloped RSD?

28:22 2 A. No, it's not enveloped. RSD is reflex
28:28 3 sympathetic dystrophy and that was replaced by
28:32 4 complex regional pain syndrome Type 1.

28:35 5 Q. Okay.

28:36 6 A. Because it was concluded that there
28:43 7 doesn't have to be a sympathetic component to it.
28:45 8 And RSD has the "S" for sympathetic in the word. And
28:50 9 that's one of these conferences where the experts
28:52 10 meet together and they felt, from my understanding,
28:59 11 that the RSD word does not completely accurately
29:06 12 describe what's going on.

29:07 13 Q. All right.

29:08 14 A. So in the clinic setting, a lot of
29:13 15 orthopedic specialists still call it RSD. That's
29:16 16 what they -- when they were training it was RSD. So
29:20 17 it hangs with you. You call it RSD. You mean CRPS
29:25 18 Type 1.

29:26 19 Q. Got it.

29:26 20 A. So it's typically interchangeable.

29:29 21 Q. Yeah. So explain to me, if you could,
29:34 22 you're using the term "sympathetic." And what does
29:37 23 that connote in the way that you're using it?

29:45 24 MR. KRAEUTER: Object to the form.

29:46 25 A. I'm not using the word sympathetic --

29:48 1 Q. (By Mr. Meader) RSD --

29:49 2 A. Correct.

29:50 3 Q. -- I'm trying to figure out, I guess, what
29:52 4 the sympathetic -- it's a medical term, it's medical
29:54 5 jargon. I'm trying to understand what it is.

29:56 6 A. Sympathetic nerve system.

29:56 7 MR. KRAEUTER: Object to the form. You
29:58 8 can answer.

29:59 9 MR. MEADER: Okay.

30:01 10 Q. (By Mr. Meader) Okay. What is sympathetic
30:06 11 nerve system?

30:06 12 A. It's part of the nerve system in the body
30:09 13 and what started the sympathetic nerve system and
30:14 14 it's causing RSD, a malfunction of the sympathetic
30:20 15 nerve system. And the more consensus now is that the
30:23 16 sympathetic nerve system does not have to be
30:26 17 involved.

30:26 18 Q. Thank you.

30:27 19 A. That's why it's called CRPS, complex
30:31 20 regional pain syndrome. The sympathetic was taken
30:33 21 out of that.

30:34 22 Q. It's not limited to sympathetic?

30:35 23 A. Correct.

30:35 24 Q. It's more expansive now?

30:37 25 A. Correct.

30:38 1 Q. Okay. Thank you. Now I understand.
30:39 2 Thank you. All right. So going back to the Budapest
30:44 3 diagnostic criteria. If we were to go to the
30:49 4 vasomotor -- and I'm going to ask the same series of
30:51 5 questions as I did for the August 10th visit.

30:54 6 Going through the vasomotor criteria,
30:58 7 you'll agree with me the notes do not reflect any of
31:01 8 those symptoms or signs?

31:02 9 A. Correct.

31:02 10 Q. And the same with pseudomotor?

31:05 11 A. The notes, correct.

31:07 12 Q. And the same with motor/trophic?

31:09 13 A. Correct.

31:10 14 Q. And so based on the contents of these
31:13 15 notes, it would be insufficient to reach a CRPS Type
31:19 16 1 diagnosis?

31:20 17 A. Based on the note itself, correct.

31:22 18 Q. And it looks like Dr. Kamaleson notes that
31:36 19 the skin on the dorsum of her hand has a normal sheen
31:39 20 to it and that her motion, I guess, range of motion
31:43 21 is normal now.

31:45 22 A. Which means it was not normal before.

31:47 23 Q. Okay.

31:47 24 A. Which I don't have any records from him.
31:51 25 You have to ask him.

31:51 1 Q. Okay. So now we're on to October 21st.

32:00 2 A. Okay. Tell me the page number.

32:06 3 Q. I'm sorry. It is 26.

32:08 4 MR. KRAEUTER: What was the date again?

32:10 5 MR. MEADER: October 21st.

32:12 6 A. Okay. Yes.

32:29 7 Q. (By Mr. Meader) Okay. At this point he
32:43 8 notes there's no swelling, edema or I think he also
32:50 9 says -- okay. He does mention that the trophic
32:54 10 changes of the skin have improved, although I don't
32:59 11 recall seeing any reference to any trophic changes in
33:02 12 any prior records here.

33:07 13 So let's kind of go through the Budapest
33:10 14 diagnostic criteria. I'll start with vasomotor. Are
33:14 15 there any signs or symptoms that are contained in his
33:20 16 notes?

33:20 17 A. No, not in the note.

33:22 18 Q. How about the pseudomotor?

33:23 19 A. He says trophic changes of skin have
33:31 20 improved.

33:33 21 Q. That might be one I have to ask him about
33:35 22 because it's tough to say what he --

33:37 23 A. Because we don't see in the previous
33:39 24 notes. He doesn't mention it. And she's likely
33:43 25 hypersensitive. You should ask him for that.

33:46 1 Q. Okay. Yeah. I agree. It's not as clear
33:49 2 in these as it is in the others.

33:51 3 Okay. Down there at the bottom, it
33:56 4 references you and your plan in No. 2. Going to have
33:58 5 her see Dr. Niederwanger to discuss interventional
34:02 6 options including stellate ganglion block.

34:08 7 A. Okay.

34:08 8 Q. What is a stellate ganglion block?

34:12 9 A. That's an injection that is done either
34:15 10 under ultrasound or fluoroscopy where local
34:20 11 anesthetic is placed typically around the C6
34:23 12 vertebral body from an anterior approach, which is
34:30 13 supposed to numb the stellate ganglion, which is a
34:36 14 relay station for sympathetic nerve fibers.

34:39 15 Q. Okay. And how long does that numbness
34:44 16 last once it's done?

34:45 17 A. It depends what local anesthetic is used.
34:48 18 It lasts 30 minutes to several hours.

34:53 19 Q. What is the reason for doing one of these
34:56 20 blocks?

34:56 21 A. Previously stellate ganglion blocks were
35:04 22 done to find out if the pain has meted through the
35:12 23 sympathetic nerve system. More recent research
35:22 24 questions the true benefit for diagnosis.

35:28 25 Q. So is it a diagnosis or is it a treatment?

35:31 1 A. It's a diagnosis.

35:32 2 Q. It's a diagnostic tool?

35:34 3 A. It's a, it's supposed to be a diagnostic
35:38 4 tool, yes. The stellate ganglion block is not
35:44 5 included in the criteria anymore just because the
35:48 6 results were questionable. Some of the patients that
35:52 7 got positive benefits was more -- was likely placebo
35:58 8 related and negative outcomes, meaning no change in
36:02 9 the pain. Did not mean they do not have CRPS.

36:08 10 And I have a paper here because I figured
36:10 11 that you would ask it honestly and that's what I did
36:14 12 on the weekend. I do have a paper here that explains
36:16 13 this very nicely as well. And you do not have a copy
36:19 14 of that yet.

36:20 15 Q. Okay.

36:21 16 A. But it's, it's not part of diagnostic
36:24 17 criteria. It's done probably less frequent now than
36:29 18 it used to be done. And the diagnostic value has
36:37 19 been questioned more.

36:40 20 Q. Okay. And you have a quote from this
37:10 21 Cochrane Library. Are you familiar with that?

37:12 22 A. I'm not.

37:13 23 Q. Okay. Yeah. Go ahead.

37:16 24 A. It's a database of systematic reviews that
37:18 25 look at all available studies that cover one topic or

37:24 1 one specific procedure. And then they look what's
37:29 2 the evidence for it, what's the evidence against it.
37:31 3 They classify the studies by quality.

37:34 4 This is an article that was published
37:42 5 fairly recent, within the last three years, 2013.
37:52 6 And the results were that the conclusion is there's
38:01 7 limited data available to suggest -- the limited data
38:06 8 available do not suggest that local anesthetic
38:08 9 sympathetic block is effective for reducing pain in
38:13 10 CRPS.

38:14 11 Overall, the evidence is very limited,
38:18 12 precludes a drawing of any strong conclusion. The
38:21 13 evidence does not provide support for the efficacy of
38:26 14 local anesthetic sympathetic blocks in managing
38:29 15 people with CRPS. And I'm -- this is the summary.
38:35 16 This is the whole paper. And they included every
38:38 17 available study is all in here.

38:42 18 So the trend is probably to go more away
38:48 19 from sympathetic block as a diagnostic criteria for
38:53 20 CRPS.

38:53 21 Q. All right.

38:54 22 A. And it kind of plays in the same scene
38:59 23 that we had before. The reason is possibly that CRPS
39:04 24 doesn't have the sympathetic in it anymore.

39:06 25 Q. Uh-huh.

39:06 1 A. In the olden days we thought sympathetic
39:09 2 nerve system, something is wrong. Call it RSD.
39:13 3 Well, now we are more educated and it's not on the
39:17 4 sympathetic nerve system. And, obviously, there was
39:20 5 a lot of placebo effects with those sympathetic
39:28 6 blocks.

39:29 7 Q. So I guess the stellate ganglion block, it
39:35 8 would let you know, I guess, if it was the
39:37 9 sympathetic nerve system?

39:38 10 A. No.

39:39 11 Q. Not necessarily?

39:40 12 A. No.

39:40 13 Q. Okay. Any idea why he would recommend or
39:47 14 ask that you discuss that with her?

39:49 15 A. Yes. I'm sure -- no, I'm not sure. I
39:53 16 assume that it's when he trained, he's probably done
39:57 17 more, and it was called RSD.

39:59 18 Q. That's right.

39:59 19 A. His note says RSD.

40:01 20 Q. Yeah.

40:02 21 A. And so it is not, it is not the wrong
40:06 22 thing to do. It is something to consider. But you
40:10 23 also have to discuss with the patient this is the
40:13 24 benefits we expect. This is the outcome that we
40:16 25 might get. These are the risks involved with the

40:19 1 procedure.

40:19 2 And on the first visit, I think I
40:21 3 discussed this with her. I do remember that. We can
40:24 4 look at. If it's in my note or not, I'm not sure.
40:27 5 But I know I discussed it with her and she was
40:29 6 hesitant to undergo it and I agreed with her. I do
40:32 7 agree that for a clinical diagnosis, it's not part of
40:38 8 the criteria anymore. It is not a long-term
40:42 9 treatment typically. It is not something you do a
40:46 10 stellate ganglion block, pain goes away and stays
40:49 11 away. That would be very uncommon.

40:53 12 So then the question really becomes you
40:56 13 want to take the risk of doing this with the limited
41:00 14 outcome data that we can get or do you want to say
41:04 15 this is not part of the workup that I would
41:08 16 recommend.

41:08 17 Q. So based on, I guess, what I'm hearing you
41:13 18 say, based on the fact that it's a risky procedure,
41:15 19 that was part of what played into her decision of not
41:18 20 wanting to do it or part of why your --

41:21 21 A. I think that was part of why I recommended
41:23 22 not to do it.

41:23 23 Q. Okay. What are the risks associated with
41:26 24 the blocks?

41:27 25 A. Well, any injection, with infection,

41:35 1 bleeding, anaphylactic reaction, all very unlikely.
41:40 2 Stellate ganglion block does come from the front of
41:46 3 the neck, so there's nerves that run. You can get a
41:50 4 hoarseness of the voice. You can damage the nerves
41:52 5 to the voice box. If you get an infection deep in
41:55 6 the area of the cervical region, it would be very
41:59 7 difficult. You have the esophagus where your food
42:04 8 goes down. If you get the needle close to that or
42:09 9 into that, you likely get bacteria that can be
42:14 10 transported further back in the neck and it can cause
42:16 11 an infection afterwards. Those are the main reasons,
42:22 12 I would assume.

42:22 13 Q. What is a riskier procedure, a spinal cord
42:25 14 stimulator or the blocks?

42:27 15 A. Based on the outcome, spinal cord
42:34 16 stimulator, if it works, it can last a lifetime. It
42:37 17 can last long term. It's therapeutic. Versus a
42:40 18 one-hour benefit. Then I believe that the stellate
42:46 19 ganglion block is a higher risk -- it's not about
42:48 20 risk. It's risk/benefit. The benefit of the
42:50 21 stellate ganglion block is extremely limited. The
42:56 22 benefit of spinal cord stimulator, if it works, is
42:59 23 very beneficial.

43:05 24 As a patient, you have to choose. You
43:08 25 don't choose between the two. Okay? Because one is

43:10 1 not done for a long-term benefit. The other one is
43:14 2 done for a long-term benefit. So it's very difficult
43:17 3 to compare. But spinal cord stimulator has its risks
43:21 4 as well. There's no doubt about that. But in the
43:26 5 risk/benefit analysis, I believe that it comes out
43:30 6 ahead because if it gives you benefits, you'd have a
43:33 7 long-term benefit.

43:36 8 Q. Okay. We may come back to that. Let's
43:39 9 look at this record from the 27th that is page 32.
43:43 10 This is from when you first --

43:45 11 A. Yeah. My records.

43:46 12 Q. Yes. When you first saw Ms. Orr.

43:54 13 A. Yeah. 10/27/2015. Yes.

44:02 14 Q. All right. Let's go through the physical
44:22 15 examination.

44:22 16 A. Okay.

44:23 17 Q. It looks like there is no clear allodynia.

44:32 18 A. Correct.

44:33 19 Q. Subtle skin changes?

44:41 20 A. Uh-huh.

44:41 21 Q. Did you document any of that? Did you
44:43 22 take any pictures?

44:44 23 A. No.

44:44 24 Q. What did the skin changes look like?

44:47 25 A. If you compare the right to the left side,

44:51 1 they were just different looking. I do not have any
44:55 2 pictures. We don't take pictures. It's not
44:57 3 standard.

44:58 4 Q. Okay. Was it red or was it white?

45:03 5 A. It was, in my recollection, I believe it
45:06 6 was more red. More reddish, more skin coloring on
45:12 7 the right side versus the left side.

45:14 8 Q. There have been other reasons that that
45:16 9 was the case besides CRPS?

45:23 10 A. Well, is one sign by itself, yes.

45:32 11 Q. Okay. And some swelling noted --

45:44 12 A. Uh-huh.

45:44 13 Q. -- in the right dorsal forearm. So no
45:58 14 complaints of it being cold or hot?

46:03 15 A. Yes. Let me see.

46:16 16 Q. I see it there.

46:18 17 A. One second. She oftentimes feels there's
46:20 18 swelling in the right hand and temperature
46:22 19 differences as well.

46:23 20 Q. Okay. So that was a symptom but not a
46:25 21 sign?

46:25 22 A. Correct.

46:26 23 Q. You did not observe that?

46:28 24 A. Temperature difference?

46:30 25 Q. Yes.

46:30 1 A. No. I did not write it down, so I do not
46:34 2 believe -- I typically put my hand on it and compare
46:37 3 right and left, and I could not say there was a
46:40 4 temperature change. I do know her intake sheet from
46:45 5 the same day she does put cold on there and skin
46:53 6 color and arm changes and red spots. This is part of
46:56 7 her intake. I don't know if you have that.

47:02 8 Q. I think I do.

47:03 9 A. And this is the review of systems paper.
47:03 10 This is filled out by the patient.

47:06 11 Q. Right.

47:06 12 A. And I just review it afterwards.

47:08 13 Q. Okay. So you didn't note an usual, I
47:16 14 guess, fingernail growth --

47:17 15 A. No.

47:17 16 Q. -- or unusual hair?

47:19 17 A. No.

47:20 18 Q. So using the Budapest diagnostic criteria
47:37 19 and applying those criteria to what you observed,
47:40 20 would she have been positive for CRPS at this visit?

47:43 21 A. I believe, yes.

47:44 22 Q. Tell me which tests or which criteria you
47:49 23 believe were met.

47:50 24 A. Well, one second. Okay. Let's start with
48:09 25 the criteria No. 1, continued pain disproportionate

48:13 1 in time or degree to the use of course of pain after
48:16 2 trauma coinciding event, yes. This was in October.
48:20 3 The trauma was in April.

48:22 4 Q. So is it sensory, sensory --

48:26 5 A. No, no, no, no. The Budapest criteria are
48:30 6 four different sets that you have to fulfill. Only
48:34 7 one of them is the signs and symptoms. The other one
48:38 8 is continuing pain disproportionate to the event.
48:44 9 That's yes.

48:45 10 And then at least one symptom in three of
48:48 11 the four categories which is hyperalgesia or
48:57 12 allodynia. I did not see any clear allodynia. She
49:03 13 feels the pain is pins and needles, burning pain,
49:06 14 tingling, sharp, electric shock pain. It is for me
49:12 15 report of hyperalgesia. This is a symptom. This is
49:15 16 what she told me in the history.

49:17 17 Q. Right. So out of the four that you have,
49:19 18 that would be sensory?

49:19 19 A. Correct.

49:20 20 Q. That's been reported?

49:23 21 A. Yes. Vasomotor, report of skin color or
49:27 22 temperature changes, and she did report that to me.
49:31 23 Then report of edema or swelling. Reported she
49:35 24 oftentimes feels there's swelling in the right hand.

49:40 25 Q. Okay. So that's positive as well. So